

W02995 QES



Environmental  
Services

Quanterra Incorporated  
13715 Rider Trail North  
Earth City, Missouri 63045

314 298-8566 Telephone  
314 298-8757 Fax

0052516

## CASE NARRATIVE

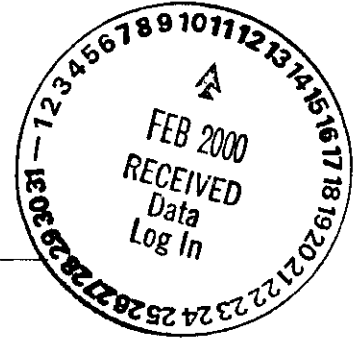
Bechtel Hanford Incorporated  
3350 George Washington Way  
Richland, Washington 99352

**RECEIVED**  
MAR 28 2000

**EDMC**

February 10, 2000

Attention: Joan Kessner



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Project Number	:	33548
SDG	:	W02995
Number of Samples	:	one (1)
Sample Matrix	:	Water
Data Deliverable	:	Summary
Date SDG Closed	:	December 29, 1999

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## II. Introduction

On December 29, 1999, one (1) "water" sample was received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. The samples were received within temperature criteria. See the attached Sample Summary sheet for the client and lab Ids for these samples.

## III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested:      pH - 150.1  
                                 Sulfate - 375.4  
                                 Chlorine (Total Residual) - 330.3  
                                 VOA - 8260A (TCL)

Deviation from Request:      There were no deviations.

Bechtel Hanford Incorporated  
February 10, 2000  
Project Number: 33548  
SDG: W02995  
Page 2

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#### IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank  
QCLCS- Quality Control Laboratory Control Sample, Blank Spike  
MS- Matrix Spike.  
DUP- Matrix Duplicate  
MSD- Matrix Spike Duplicate.

#### V. Comments

General: The term "Detection Limit" used in the analytical data reports refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

Please refer to the attached cross-reference table for the standard preparation methods used at Quanterra, St. Louis.

VOA: A Laboratory Control Sample, Method Blank, Matrix Spike and Matrix Spike Duplicate were analyzed with each preparation batch per the protocol for this analysis.

There were no comments or non-conformances associated with the Volatiles data.

Wet Chemistry: A Laboratory Control Sample, Method Blank, Matrix Spike and Matrix Duplicate were analyzed with each preparation batch per the protocol for this analysis. A duplicate was analyzed as QC for the pH and Residual Chlorine analyses.

The iodine used for the Residual Chlorine Blank back titration was expired. The data does not indicate that the reagent had deteriorated. The data is being reported with Non-Conformance memo F00021.

There were no other comments or non-conformances associated with the Wet Chemistry data.

Bechtel Hanford Incorporated

February 10, 2000

Project Number: 33548

SDG: W02995

Page 3

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I certify that this Data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:

A handwritten signature in cursive script, appearing to read "Marc Ward", written over a horizontal line.

Marc Ward

St. Louis Project Manager

## SAMPLE SUMMARY

F9L300207

WO #	SAMPLE#	CLIENT	SAMPLE ID	DATE	TIME
D711R	001	B0XB45		12/29/99	08:36

### NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

## METHODS SUMMARY

F9L300207

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
pH (Electrometric)	MCAWW 150.1	MCAWW 150.1
Residual Chlorine 330.3	MCAWW 330.3	
Sulfate	MCAWW 375.4	MCAWW 375.4
Volatile Organics by GC/MS	SW846 8260A	SW846 5030/8260

### References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical  
Methods", Third Edition, November 1986 and its updates.



Clouseau

# Nonconformance Memo

NCM #: <b>F00021</b>	Classification: <b>Deficiency</b>
NCM Initiated By: <b>Kress, Tracey</b>	Status: <b>GLREVIEW</b>
Date Opened: <b>01/20/00</b>	Production Area: <b>Classical Chemistry</b>
Date Closed: <b>N/A</b>	Tests: <b>330.3</b>
	Lot #'s (Sample #'s): <b>F0A140206 (1); F0A190000 (372); F9L210106 (1); F9L300207 (1)</b>
	QC Batch: <b>0019372</b>
Nonconformance: <b>Expired standards</b>	
Subcategory: <b>Use of expired standards</b>	

## Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Kress, Tracey	01/20/00	Iodine used for blank back titration was expired. Reagent was used and problem was not discovered until report was generated.

## Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Kress, Tracey	01/20/00	Data did not reflect signs that reagent had deteriorated. Data was reported as is.

## Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes:</u>
Kleszczewski, Jim	N/A	Verified/completed	New reagent ordered.

## Approval History

<u>Name</u>	<u>Date Approved:</u>	<u>Position</u>
Kress, Tracey	01/20/00	Chemist
Ward, Marti	01/28/00	Project Manager
Kleszczewski, Jim	02/10/00	Quality Assurance

FSL20300  
Page 1

QUANTERRA INCORPORATED  
CLIENT ANALYSIS SUMMARY  
Quanterra - St. Louis

Run Date: 12/30/99  
Time: 15:40:52  
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.  
PROJECT MANAGER: MARTI WARD  
PROJECT #: PERMIT MONITOR  
REPORT TO: Bechtel Hanford, Inc.  
P.O. NUMBER: MRC-SBB-A-19981  
SITE: B99-018  
AMOUNT REC'D: 3X40V,250P,120P,20P,LP  
STORAGE LOC: T4A  
LOT COMMENTS:  
MATRIX: WATER  
SAMPLE ID: B0XB45  
QC PACKAGE: Special Report - see checklist  
SAMPLE COMMENTS:  
RUN DUP ON PH  
Beginning Depth: .00 Ending Depth: .00

QUOTE/SAR #: 33548  
LAB ID: F-9L300207-001  
WORK ORDER: D711R  
RECEIVING DATE: 12/30/99  
SAMPLING DATE: 12/29/99  
ANALYTICAL DUE DATE: 1/28/00N  
REPORT DUE DATE: 2/14/00  
PRIORITY: 29  
SAMPLING TIME: 8:36  
RECEIVING TIME: 9:00  
SDG# : W02995

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Chlorine, Residual (330.3) NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION (I-88-RD-01) D711R-1-09 Protocol: A QC Program: STANDARD TEST SET	06	12/30/99	0/00/00	12/30/99
Volatile Organics, GC/MS (8260A) PURGE AND TRAP - 5 mL purge STL: SW-846 8260A (I-15-MZ-01) D711R-1-01 Protocol: A QC Program: STANDARD TEST SET	06	12/30/99	0/00/00	1/12/00
pH - Aqueous (150.1) NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION (I-88-AJ-01) D711R-1-04 Protocol: A QC Program: STANDARD TEST SET	06	12/30/99	0/00/00	12/31/99
Sulfate . 375.4) NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION (I-88-UV-01) D711R-1-07 Protocol: A QC Program: STANDARD TEST SET	06	12/30/99	0/00/00	1/26/00

PSL20300  
Page 1

QUANTERRA INCORPORATED  
CLIENT ANALYSIS SUMMARY  
Quanterra - St. Louis

Run Date: 12/30/99  
Time: 15:40:52  
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.  
PROJECT MANAGER: MARTI WARD  
PROJECT #: PERMIT MONITOR  
REPORT TO: Bechtel Hanford, Inc.  
P.O. NUMBER: MRC-SBB-A-19981  
SITE: B99-018  
AMOUNT REC'D: 3X40V,250P,120P,20P,LP  
STORAGE LOC: T4A  
LOT COMMENTS:  
MATRIX: WATER  
SAMPLE ID: B0XB45  
QC PACKAGE: Special Report - see checklist  
SAMPLE COMMENTS:  
RUN DUP ON PH  
Beginning Depth: .00 Ending Depth: .00

QUOTE/SAR #: 33548  
LAB ID: F-9L300207-001-D  
WORK ORDER: D711R MSD  
RECEIVING DATE: 12/30/99  
SAMPLING DATE: 12/29/99  
ANALYTICAL DUE DATE: 1/28/00N  
REPORT DUE DATE: 2/14/00  
PRIORITY: 29  
SAMPLING TIME: 8:36  
RECEIVING TIME: 9:00  
SDG# : W02995

***** ANALYSIS *****	WRK IOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Chlorine, Residual (330.3)	06	12/30/99	0/00/00	12/30/99
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION				
(I-88-RD-01) D711R-1-0C Protocol: A	QC Program: STANDARD TEST SET			
Volatile Organics, GC/MS (8260A)	06	12/30/99	0/00/00	1/12/00
PURGE AND TRAP - 5 mL purge				
STL: SW-846 8260A				
(I-15-MZ-01) D711R-1-03 Protocol: A	QC Program: STANDARD TEST SET			



PSL20300  
Page 1

QUANTERRA INCORPORATED  
CLIENT ANALYSIS SUMMARY  
Quanterra - St. Louis

Run Date: 12/30/99  
Time: 15:40:52  
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.  
PROJECT MANAGER: MARTI WARD  
PROJECT #: PERMIT MONITOR  
REPORT TO: Bechtel Hanford, Inc.  
P.O. NUMBER: MRC-SBB-A-19981  
SITE: B99-018  
AMOUNT REC'D: 3X40V,250P,120P,20P,LP  
STORAGE LOC: T4A  
LOT COMMENTS:  
MATRIX: WATER  
SAMPLE ID: B0XB45  
QC PACKAGE: Special Report - see checklist  
SAMPLE COMMENTS:  
RUN DUP ON PH  
Beginning Depth: .00 Ending Depth: .00

QUOTE/SAR #: 33548  
LAB ID: F-9L300207-001-S  
WORK ORDER: D711R MS  
RECEIVING DATE: 12/30/99  
SAMPLING DATE: 12/29/99  
ANALYTICAL DUE DATE: 1/28/00  
REPORT DUE DATE: 2/14/00  
PRIORITY: 29  
SAMPLING TIME: 8:36  
RECEIVING TIME: 9:00  
SDG# : W02995

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Chlorine, Residual (330.3) NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION (I-88-RD-01) D711R-1-0A Protocol: A QC Program: STANDARD TEST SET	06	12/30/99	0/00/00	12/30/99
Volatile Organics, GC/MS (8260A) PURGE AND TRAP - 5 mL purge STL: SW-846 8260A (I-15-MZ-01) D711R-1-02 Protocol: A QC Program: STANDARD TEST SET	06	12/30/99	0/00/00	1/12/00
Sulfate 375.4) NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION (I-88-UV-01) D711R-1-08 Protocol: A QC Program: STANDARD TEST SET	06	12/30/99	0/00/00	1/26/00

CUR # 020549 2°

FAL300202 45 12-30-99

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						B99-018-30		Page 1 of 2				
Collector DLBOWERS	Company Contact JP ZORIC	Telephone No. 373-4315		Project Coordinator TRENT, SJ		Price Code 7N		Data Turnaround 45 Days						
Project Designation 183N Backwash Discharge Pond -- Permit Monitoring		Sampling Location 183 N		SAF No. B99-018		Air Quality --								
Ice Chest No. ECL 99-003		Field Logbook No. EFL 1133-8		COA 77BK27YA40		Method of Shipment FEDERAL EXPRESS								
Shipped To Quanterra Incorporated		Offsite Property No. D# 12-29-99 A0000880 A000880		Bill of Lading/Air Bill No. 4235-7953-3027										
POSSIBLE SAMPLE HAZARDS/REMARKS W02995				Preservation	None	None	Cool 4C	Cool 4C	Cool 4C	HNO3 to pH <2	HNO3 to pH <2	None	Cool 4C	HCl to pH <2 Cool 4C
				Type of Container	P	P	P	P	P	P	P	aGs*	aGs*	
				No. of Container(s)	1	1	1	1	1	1	1	3	3	
				Volume	20mL	125mL	250mL	500mL	500mL	500mL	500mL	1000mL	40mL	40mL
Special Handling and/or Storage				Activity Scan	pH - 150.1	Sulfate - 375.4	TDS - 160.1	TSS - 140.2	Arsenic 7060 (µg/g)	ICR Metals 6010 (µg/g)	Chlorine (Total residual) - 330.3	Arsenic 7060 (µg/g)	ICR Metals 6010 (µg/g)	
SAMPLE ANALYSIS				100% Full										
Sample No.	Matrix *	Sample Date	Sample Time											
BOXB45	Water	12-29-99	0836	X	X	X								
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *		
Relinquished By: Doug Downer		Date/Time: 12-29-99/1100		Received By: Fed Ex		Date/Time: 12-30-99/0900		<p>** Close SDG upon receipt of samples SAMPLE ORIGINATED IN NON-SAMPLE ORIGINATED IN NON-CONTROLLED RADIOLOGICAL AREA. &lt;2000 PCI/G. NO TOTAL ACTIVITY REQUIRED</p> <p><b>COPY</b> 870 12-29-99</p> <p>mistakenly stamped copy on original</p>				<p>S=Soil SE=Sediment SO=Solid S=Sediment W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other</p>		
Relinquished By: FED EX		Date/Time: 12-30-99		Received By: [Signature]		Date/Time: 12-30-99/0900								
Relinquished By:		Date/Time:		Received By:		Date/Time:								
Relinquished By:		Date/Time:		Received By:		Date/Time:								
Relinquished By:		Date/Time:		Received By:		Date/Time:								
LABORATORY SECTION		Received By		Title				Date/Time						
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time						

CUR # 020549 20

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B99-018-30		Page 2 of 2												
Collector DLBOWERS		Company Contact JP ZORIC		Telephone No. 373-4315		Project Coordinator TRENT. SJ		Price Code 7N Data Turnaround 45 Days												
Project Designation 183N Backwash Discharge Pond -- Permit Monitoring		Sampling Location 183 N		SAF No. B99-018		Air Quality														
Ice Chest No. ERC 99-003		Field Logbook No. EEL 1133-8		COA 77BK27YA40		Method of Shipment FEDERAL EXPRESS														
Shipped To Quanterra Incorporated		Offsite Property No. A 20000810 B 12-28-99 A 20000880		Bill of Lading/Air Bill No. 4225-7953-3027																
POSSIBLE SAMPLE HAZARDS/REMARKS  W02995  Special Handling and/or Storage				Preservation	HCl to pH <2 Cool 4C															
				Type of Container	2Gs*															
				No. of Container(s)	3															
				Volume	40mL															
SAMPLE ANALYSIS				VOA - 8260A (TCL)	100%	Full														
Sample No.	Matrix *	Sample Date	Sample Time																	
BOXB45	Water	12-29-99	0836	X																
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *								
Relinquished By Doug Bowers 12-29-99/100		Date/Time		Received By Fed Ex		Date/Time		<p>** Close SDG upon receipt of samples SAMPLE ORIGINATED IN NON-SAMPLE ORIGINATED IN NON-CONTROLLED RADIOLOGICAL AREA. &lt;2000 PC/G NO TOTAL ACTIVITY REQUIRED</p> <p><b>COPY</b> B 28 12-28-99</p> <p>mistakenly stamped copy on original</p>				<p>S = Soil SL = Sediment SD = Solid S = Sludge W = Water OW = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue W1 = Waste L = Liquid V = Vegetation X = Other</p>								
Relinquished By FED Ex 12-30-99		Date/Time		Received By KISIN 12-30-99 0900		Date/Time														
Relinquished By 1.4.00		Date/Time		Received By		Date/Time														
Relinquished By		Date/Time		Received By		Date/Time														
Relinquished By		Date/Time		Received By		Date/Time														
Relinquished By		Date/Time		Received By		Date/Time														
Relinquished By		Date/Time		Received By		Date/Time														
Relinquished By		Date/Time		Received By		Date/Time														
LABORATORY SECTION		Received By		Title				Date/Time												
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time												

BHI-EE-011 (10/99)

020549

Login No.: F9L300207  
W02995

**Condition Upon Receipt Variance Report**  
**St. Louis Laboratory**

Client: BHI  
Project No: 33548  
Shipper/No: FEDEX/4235 7953 3027

Date: 12-30-99 Time: 0900  
Initiated by: Jason Tiemann  
RFA/COC Numbers: B99-018-30

Condition/Variance (Check all that apply):

1. <input type="checkbox"/> Sample received broken/leaking.	8. <input type="checkbox"/> Sample ID on container does not match sample ID on paperwork. Explain: _____
2. <input type="checkbox"/> Sample received without proper preservative. <input type="checkbox"/> Cooler temperature not within 4-C $\pm$ 2-C Record temperature: _____ <input type="checkbox"/> pH _____ <input type="checkbox"/> other: _____	9. <input type="checkbox"/> All coolers on airbill not received with shipment.
3. <input type="checkbox"/> Sample received in improper container.	10. <input type="checkbox"/> Other (explain below): _____
4. <input type="checkbox"/> Sample received without proper paperwork. Explain: _____	
5. <input type="checkbox"/> Paperwork received without sample.	
6. <input type="checkbox"/> No sample ID on sample container.	
7. <input type="checkbox"/> Custody tape disturbed/broken/missing.	

☒ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 2°  
Temperature Variance Does Not Affect the Following Analyses: \_\_\_\_\_

Notes: \_\_\_\_\_

**Corrective Action:**

- ☐ Client's Name: \_\_\_\_\_ Informed verbally on: \_\_\_\_\_ By: \_\_\_\_\_
- ☐ Client's Name: \_\_\_\_\_ Informed in writing on: \_\_\_\_\_ By: \_\_\_\_\_
- ☐ Sample(s) processed "as is".
- ☐ Comments: \_\_\_\_\_ If released, notify: \_\_\_\_\_
- ☐ Sample(s) on hold until: \_\_\_\_\_

Sample Control Supervisor Review: Jason Tiemann Date: 12-30-99  
Project Management Review: M. Ward Date: 1/4/00

**SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE**

BECHTEL HANFORD, INC.

Client Sample ID: B0XB45

GC/MS Volatiles

Lot-Sample #...: F9L300207-001    Work Order #...: D711R101    Matrix.....: WATER  
 Date Sampled...: 12/29/99    Date Received...: 12/30/99  
 Prep Date.....: 01/03/00    Analysis Date...: 01/03/00  
 Prep Batch #...: 0004234  
 Dilution Factor: 1    Method.....: SW846 8260A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	10	ug/L
Vinyl chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Acetone	ND	20	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Carbon disulfide	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
2-Butanone	ND	20	ug/L
1,2-Dichloroethene (total)	ND	5.0	ug/L
Chloroform	21	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
Trichloroethene	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	20	ug/L
cis-1,3-Dichloropropene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
trans-1,3-Dichloropropene	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
2-Hexanone	ND	20	ug/L
Tetrachloroethene	ND	5.0	ug/L
Dibromochloromethane	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Ethylbenzene	ND	5.0	ug/L
Xylenes (total)	ND	10	ug/L
Styrene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	82	(80 - 123)
Toluene-d8	101	(77 - 131)
Dibromofluoromethane	105	(88 - 139)

BECHTEL HANFORD, INC.

BOXB45

GC/MS Volatiles

Lot-Sample #: F9L300207-001

Work Order #: D711R101

Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

BECHTEL HANFORD, INC.

Client Sample ID: BOXB45

General Chemistry

Lot-Sample #...: F9L300207-001

Work Order #...: D711R

Matrix.....: WATER

Date Sampled...: 12/29/99

Date Received...: 12/30/99

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.6		No Units	MCAWW 150.1	01/28/00	0028368
			Dilution Factor: 1			
Sulfate	24.9	5.0	mg/L	MCAWW 375.4	01/12-01/20/00	0019379
			Dilution Factor: 1			
Total Residual Chlorine	0.10 <	0.10	mg/L	MCAWW 330.3	01/19/00	0019372
			Dilution Factor: 1			

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## General Chemistry

Client Lot #...: F9L300207

Matrix.....: WATER

Date Sampled...: 12/29/99

Date Received...: 12/30/99

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Sulfate	100	Work Order #...: D711R108 (75 - 125)	MCAWW 375.4	MS Lot-Sample #: F9L300207-001 01/12-01/20/00	0019379

Dilution Factor: 1

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.



## General Chemistry

Date Received..: 12/30/99

25

# METHOD BLANK REPORT

## General Chemistry

Client Lot #...: F9L300207

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH (liquid)	5.8	Work Order #: D81CK101	No Units	MB Lot-Sample #: F0A280000-368 MCAWW 150.1	01/28/00	0028368
		Dilution Factor: 1				
Sulfate	ND	Work Order #: D7L75101	mg/L	MB Lot-Sample #: F0A190000-379 MCAWW 375.4	01/12-01/20/00	0019379
		Dilution Factor: 1				
Total Residual Chlorine	ND	Work Order #: D7KVN101	mg/L	MB Lot-Sample #: F0A190000-372 MCAWW 330.3	01/19/00	0019372
		Dilution Factor: 1				

### NOTE(S):

(Calculations are performed before rounding to avoid round-off errors in calculated results.)

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## General Chemistry

Client Lot #...: F9L300207

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Sulfate	110	Work Order #: D7L/5102 (80 - 120)	LCS Lot-Sample#: F0A190000-379 MCAWW 375.4	01/12-01/20/00	0019379
		Dilution Factor: 1			
Total Residual Chlorine	99	Work Order #: D7KVN102 (80 - 120)	LCS Lot-Sample#: F0A190000-372 MCAWW 330.3	01/19/00	0019372
		Dilution Factor: 1			

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.